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09/751,975	12/29/2000	Charles Elkins	V199-1933	9062
<div>7590 Thomas E. Donohue Artz & Artz, PC Suite 250 28333 Telegraph Road Southfield, MI 48034</div>				
			EXAMINER PRONE, JASON D	
			ART UNIT 3724	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/751,975
Filing Date: December 29, 2000
Appellant(s): ELKINS ET AL.

MAILED
JAN 14 2008
Group 3700

Thomas Donohue
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 25 October 2007 appealing from the Office action mailed 18 January 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,562,058

BOYD

2-1971

(9) Grounds of Rejection

Claims 18, 20, and 21 stand rejected under 35 U.S.C. 102(b) as being anticipated by Boyd (3,562,058).

In regards to claim 18, Boyd discloses the same invention including a method of separating (Title) individual circuit boards from a multiple array (Column 1 lines 28-38) with pre-scored planes (Column 2 lines 70-72), aligning one of the pre-scored planes with a splitting element (breaking pad 32), affixing a removable shield element to an individual circuit board portion (3 and 4), loading the removable shield element to reduce board flex (10), inducing torque on the multiple board array such that the multiple board array is forced onto the splitting element and breaks along the pre-scored planes (Column 3 lines 3-15).

In regards to claim 20, Boyd discloses the same invention including an apparatus for separating (Title) individual circuit boards from a multiple array (Column 1 lines 28-38) with pre-scored planes (Column 2 lines 70-72) and a plurality of electrical components (Column 1 lines 28-38) comprising at least one splitting element positioned along one of the pre-scored planes (32), at least one torque inducing element using surface loading to mechanically force the array onto the at least one splitting element and thereby breaking the array along the pre-scored plane (10), the at least one torque inducing element forcing the multiple array without loading the electrical components (Fig. 2), the torque inducing element applies the surface loading to the array by way of a shield element attached to the individual circuit board such the components remain undamaged (Fig. 2), and a transport element for automatically aligning one of the pre-scored planes with the at least one splitting element (21).

In regards to claim 21, Boyd discloses the same invention including a method of separating (Title) individual circuit boards from a multiple array (Column 1 lines 28-38) with pre-scored planes (Column 2 lines 70-72), aligning one of the pre-scored planes with a splitting element (breaking pad 32), inducing torque on the array such that the array is forced onto the splitting element and breaks along the pre-scored plane (Column 3 lines 3-15), the inducing torque on the array includes transferring load from a torque inducing element through a shield element into a portion of the array (3 and 4).

(10) Response to Argument

Applicant argues that the item 32 of Boyd can not be considered a splitting element, this is not correct. Without any claimed structure of the splitting element, the splitting element can be interpreted to be any item that has something to do with a splitting function. In this case, item 32 clearly assists in the splitting of the circuit boards (column 3 lines 10-13) and is clearly called a "breaking pad". The breaking pad 32, regardless of its structure, is a necessary component in the splitting of the circuit board array and is therefore considered a splitting element. Next, with regards to the interpretation of the term "aligned", it is noted that any two items are aligned at any given time (i.e. there is a straight line to any two points any given time). That being said and using Figure 2 of Boyd, breaking pad 32 is clearly underneath one of the pre-scored planes. In other words, a pre-scored plane of the circuit board array is on the breaking pad and therefore is aligned therewith. Since the entire array of Boyd is aligned with the breaking pad, applicant argues that the alignment limitation is not anticipated by Boyd. However, one of the pre-scored planes is part of the entire array and if the array is

aligned with the breaking pad so is the one pre-scored plane. The claims do not include any structural limitations that require that *only* the pre-scored plane is aligned with the splitting element and therefore the examiner's interpretation is correct. With regards to the interpretation of the term "shield", any item that covers or conceals another item is performing a shielding function and, therefore, items 3 and 4 clearly act as a shield to the circuit board array. Items 3 and 4 seal the circuit board in a vacuum and then torque inducing element 10 is rolled over top of the circuit board array inside that is inside the shield layers 3 and 4. Therefore, since the circuit board array is inside/underneath the shield layers 3 and 4, the loading force is first applied to the shield layers which then transfer this loading force to the circuit board array. The torque inducing element 10 of Boyd does not have direct contact with the circuit board array due to the fact that the shielding layers are positioned in-between the array and the torque inducing element. Therefore, layers 3 and 4 shield the array from direct contact with the torque inducing element. Now, the term "reduce board flex" is not the same as "no board flex". The term "reduced" is a relative term that allows for a comparison. Meaning, one thing can only be considered reduced when compared to another thing. The shield layers 3 and 4 seal off the circuit board array to keep the circuit board array in its same orientation, so when the torque inducing element is rolled over the array, the vacuum seal minimizes movement. This minimizing of movement would clearly reduce and not eliminate board flex. Now when this process is compared to a process that has torque inducing element rolling over the array without a means to minimize the movement, the process of Boyd clearly reduces board flex in that comparison.

Meaning, loading the shield element 3 and 4 would clearly reduce board flex in comparison to directly loading only the circuit board array. Regardless of the previous comparison, the vacuum shield allows for a reduction in board flex to some extent. Lastly, with respect the circuit components being loaded without any damage, Boyd does disclose that the array includes circuits but does not mention that any of these circuits are ever damaged from the splitting function. To assume that any of the circuits would be damaged is speculation. Therefore, the process as a whole, which includes the torque inducing element 10 not having direct contact with the circuits of the array due to the fact that the shield layers 3 and 4 are clearly between the array and the inducing element, prevents the circuits from being damaged.

In conclusion, appellant's use of extremely broad limitation terms allows for the examiner's interpretation.

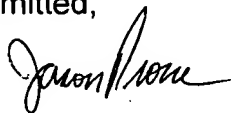
(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Jason Prone



09 January 2008

Conferees:

Boyer Ashley, SPE 3700



Allan Shoap, SPRE 3700

